

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1.-11. (Cancelled)
12. (Currently amended) A method of imaging a lymphatic system of an animal comprising:
introducing **at an injection site** a composition subcutaneously in the animal, the composition including a particle including a semiconductor nanocrystal;
exciting the particle with an excitation light source; and
detecting emission from the particle.
13. (Original) The method of claim 12, wherein the composition is introduced proximate to a tumor site in the animal.
14. (Original) The method of claim 12, wherein detecting emission includes generating an image in the near-infrared or infrared wavelength region.
15. (Original) The method of claim 14, further comprising generating a composite image including a real-time image of an area surrounding the injection site and the image in the near-infrared or infrared wavelength region.
16. (Original) The method of claim 15, wherein the particle has a diameter of between 10 nm and 20 nm.
17. (Original) The method of claim 12, wherein the particle has a diameter of between 10 nm and 20 nm.

18. (Currently amended) The method of claim 13, ~~further comprising wherein~~ **exciting the particle with an excitation light source includes** exposing the animal to white light.

19. (Original) The method of claim 12, wherein the particle emits light having a wavelength greater than 800 nm.

20. (Original) The method of claim 12, wherein the nanocrystal includes a core of a first semiconductor material and an overcoating of a second semiconductor material on the core wherein the first semiconductor material and the second semiconductor material are selected so that, upon excitation, one carrier is substantially confined to the core and the other carrier is substantially confined to the overcoating.

21. (Original) The method of claim 12, wherein detecting emission includes monitoring a site of the animal that is protected by skin.

22.-25. (Cancelled)

26. (New) The method of claim 12, wherein the semiconductor nanocrystal includes a core of a first semiconductor material.

27. (New) The method of claim 26, wherein the first semiconductor material is a Group II-VI compound, a Group II-V compound, a Group III-VI compound, a Group III-V compound, a Group IV-VI compound, a Group I-III-VI compound, a Group II-IV-VI compound, or a Group II-IV-V compound.

28. (New) The method of claim 26, wherein the first semiconductor material is ZnS, ZnSe, ZnTe, CdS, CdSe, CdTe, HgS, HgSe, HgTe, AlN, AlP, AlAs, AlSb, GaN, GaP, GaAs, GaSb, GaSe, InN, InP, InAs, InSb, TiN, TiP, TiAs, TiSb, PbS, PbSe, PbTe, or mixtures thereof.

29. (New) The method of claim 26, wherein the semiconductor nanocrystal includes a second semiconductor material overcoated on the first semiconductor material.

30. (New) The method of claim 29, wherein the first semiconductor material has a first band gap, and the second semiconductor material has a second band gap that is larger than the first band gap.

31. (New) The method of claim 29, wherein the second semiconductor material is a Group II-VI compound, a Group II-V compound, a Group III-VI compound, a Group III-V compound, a Group IV-VI compound, a Group I-III-VI compound, a Group II-IV-VI compound, or a Group II-IV-V compound.

32. (New) The method of claim 29, wherein the second semiconductor material is ZnO, ZnS, ZnSe, ZnTe, CdO, CdS, CdSe, CdTe, MgO, MgS, MgSe, MgTe, HgO, HgS, HgSe, HgTe, AlN, AlP, AlAs, AlSb, GaN, GaP, GaAs, GaSb, InN, InP, InAs, InSb, TiN, TiP, TiAs, TiSb, TlSb, PbS, PbSe, PbTe, or mixtures thereof.

33. (New) The method of claim 32, wherein the first semiconductor material and the second semiconductor material are selected so that, upon excitation, one carrier is substantially confined to the core and the other carrier is substantially confined to the overcoating.

34. (New) The method of claim 12, wherein the semiconductor nanocrystal includes an outer layer including a polydentate ligand.

35. (New) A method of imaging a lymphatic system of an animal comprising:
introducing at an injection site a composition subcutaneously in the animal, the composition including a particle including a semiconductor nanocrystal, wherein the nanocrystal includes a core of a first semiconductor material and an overcoating of a second semiconductor material on the core wherein the first semiconductor material and the second semiconductor material are selected so that, upon excitation, one carrier is substantially confined to the core and

the other carrier is substantially confined to the overcoating;
exciting the particle with an excitation light source;
detecting emission from the particle; and
generating a real-time image of an area surrounding the injection site.

36. (New) The method of claim 35, wherein generating the real-time image includes generating an image in the near-infrared or infrared wavelength region.

37. (New) The method of claim 35, wherein generating the real-time image includes generating an image in the visible wavelength region.

38. (New) The method of claim 35, wherein generating the real-time image includes generating a composite image including an image in the visible wavelength region and an image in the near-infrared or infrared wavelength region.

39. (New) The method of claim 35, wherein the excitation light source is a broadband white light source.